CHAPTER 5

Arming the Corps Force

No conflict lasts long without munitions to arm the weapons of war. The corps force can fight only as long as the COSCOM supplies it with munitions. The high firepower rate of modern weapons places unprecedented demands on the COSCOM's munitions distribution system to provide the right types and quantities of munitions at the decisive time and place. To ensure continuous, responsive distribution support, ammunition supply companies require the habitual support of transportation truck companies.

The COSCOM also arms assault forces with mines and explosive ordnance to breach enemy obstacles. It arms defensive forces with mines and explosives to help delay or stop the enemy along avenues of approach.

CONTENTS

PLANNING MUNITIONS SUPPORT

Arming the corps force represents the most extensive and time-sensitive function of the COSCOM support systems. Because of the dependency of modern warfare on complex weapon systems, effective and timely support is imperative. The COSCOM establishes and maintains a munitions support system which can respond quickly to the demands of the tactical situation. Detailed staff planning helps ensure that COSCOM units supply the right mix and quantities of munitions at the right time and place.

COSCOM CSS PLANS BRANCH

CSS plans branch personnel monitor corps G3 plans and fragmentary orders to assess changes in munitions requirements resulting from changes in the tactical situation and corps commander's intent. They perform the following tasks:

- Coordinate with corps G3 staff officers on balancing requirements against ammunition controls.
- Synchronize support recommendations from the support branches on how to most effectively arm the corps to support corps tactical plans.
- Recommend ways to allocate COSCOM resources to support or weight the main effort.
- Provide the corps G4 recommended policies and related information on controlled items.
- Revise the COSCOM's OPLANs/OPORDs to reprioritize the COSCOM's munitions support,

COSCOM MUNITIONS SUPPORT BRANCH

The munitions support branch exercises staff supervision over Class V support operations. These include supply as well as maintenance operations relating to ammunition, missiles, special weapons, and associated repair parts, special tools, and test equipment.

The munitions support branch chief –

- Develops plans and policies involving munitions supply and maintenance.
- Provides staff input for munitions planning to COSCOM CSS plans branch staff.
- Develops policies concerning surveillance of munitions.
- Maintains a running estimate of munitions requirements.
- Coordinates munitions requirements with corps G3 and G4 staff.
- Coordinates the munitions support portion of the corps slice for out-of-sector support and support to sister Services or allies.
- Establishes ammunition supply levels based on corps directives.
- Establishes and maintains an ammunition surveillance program as prescribed by AR 702-6.

- Recommends ammunition supply and storage site locations to the corps rear CP's CSS cell.

Munitions and missile officers, assigned to the COSCOM's munitions support branch, develop operating procedures and plans to implement Class V supply policies prescribed in ARs 710-1 and 710-2 and SAAS technical manuals. They also –

- Coordinate with CMMC missile munitions division staff on preplanned/preconfigured push packages and trends and problem areas.
- Coordinate with the CMCC on munitions movement and cargo transfer to support surges.
- Provide technical advice and assistance to ammunition officers in subordinate CSGs and ammunition supply units.
- Coordinate with CSG ammunition officers on cross-leveling munitions support personnel and equipment.
- Recommend movement of ASPs and CSAS as the situation dictates.
- Review and update Class V ammunition planning factors to the theater scenario.
- Monitor suspensions of ammunition.
- Recommend adjustments to Class V stockage levels.
- Recommend the slice of Class V stocks to accompany corps forces supporting an ally or sister Service.
- Coordinate the resupply of Class V stocks for attrited units at regeneration sites.

LOGISTICS PREPARATION OF THE BATTLEFIELD

COSCOM munitions support branch and weapon systems support branch personnel coordinate with COSCOM ACofS, G2 and G3 staffs on collecting and assessing data relative to arming the corps force for specific contingency areas or theaters of operations.

During initial planning stages, munitions support branch personnel use IPB products to assess and recommend the number and placement of ammunition units on time-phased deployment lists. IPB threat evaluation products can help munitions support branch personnel estimate the type and quantity of munitions required to support tactical displacements. Munitions support branch personnel use IPB terrain analysis products and threat integration products to plan ways to protect munitions support operations.

IPB products aid munitions support branch personnel in estimating the work load which captured munitions place on the force structure. Staff estimates need to include the impact of the receipt, storage, safeguarding control, and movement of captured ammunition.

REQUIRED SUPPLY RATE

The RSR and CSR impact on the allocation and supply of ammunition. The RSR refers to the quantity of ammunition a combat commander estimates is needed to support tactical operations for a specified time without ammunition expenditure restrictions. The RSR changes based on the type of operation, the overall objective, enemy capability, and revised ammunition forecasts.

Each S3 develops an RSR estimate, in coordination with S4 and S2 staffs. FM 101-10-1/2 provides gross planning factors for ammunition consumption estimates when enemy assessments and actual use factors have not been developed RSR reports list the rounds per weapon per day or a bulk allotment per day or per mission. The S3 submits the RSR through command channels to the next higher headquarters.

At each level of command, S3 stall officers review, consolidate, and forward their subordinate units' RSR to the next higher level operations staff officer. Division and separate brigade headquarters pass RSR data through S3 channels to the corps G3. He passes the consolidated corps RSR to the corps G4. The corps G4 then coordinates with the COSCOM support operations officer to assess whether munitions stocks can support requirements. The CMMC determines current stock status and restrictions on availability. COSCOM support operations staff prepares a supportability assessment for the corps G4. The corps G4 then recommends munitions distribution to support the G3's plans for current and future operations.

CONTROLLED SUPPLY RATE

The CSR is the amount of ammunition that can be allocated over a specific time period It depends on the availability of ammunition and the ability to move the ammunition as required, within the required time frame.

The corps commander establishes the CSR for corps major subordinate commands. He approves the CSR recommended by the corps G3 following discussions with the corps G4. The corps G3 recommends the CSR for chemical munitions after coordinating with the corps chemical officer and FSCOORD.

Combat commanders publish their CSR in OPORDs, service support annexes, fire support annexes, or fragmentary orders. CSRs are expressed as the number of rounds per weapon per day or rounds per specific operation, mission, or period of time. The CSR limits the amount of ammunition that units are authorized to request.

At each level, G3s/S3s work with G4s/S4s to better allocate ammunition assets according to priorities. G4s/S4s ensure that units' requirements do not exceed the CSR. The DAOs and CMMC enforce the CSR. The COSCOM support operations officer establishes procedures through the CMMC to monitor that units are following the CSR.

NBC CONSIDERATIONS

Chemical ASPs

Chemical ammunition supply points represent high-value targets. When possible, these munitions are stored in dispersed sites and kept as mobile as circumstances permit.

Contamination Avoidance Measures

CSAs, ASPs, and ATPs employ contamination avoidance measures outlined in FMs 3-3 and 9-38. Smoke coverage helps reduce the flash and thermal effects of nuclear detonation. Protective overwrap reduces the effects of radiological fallout and chemical agents. It also facilitates decontamination.

Contaminated Stocks

Contaminated stocks are segregated from clean stocks until they can be fully decontaminated. Contamination procedures are in FMs 3-5 and 3-100. Weathering can often reduce contamination levels.

The CMMC releases contaminated stocks only as a last resort. The senior tactical commander must make the decision to use contaminated stocks. His staff evaluates each item criticality, type and extent of contamination and resources available for decontamination. The overriding considerations are the risks inherent to the receiving unit. To provide a decisive tactical advantage, contaminated stocks could be issued to similarly contaminated units.

Conventional ammunition units, the CMCC, supporting MCT and MRTs, area RAOC, and supported units coordinate the transportation of contaminated stocks. The CMCC specifies the route for transporting contaminated stocks.

COSCOM MUNITIONS SUPPORT ORGANIZATION

Munitions directly influence the success of tactical operations. The COSCOM and subordinate CSGs employ ammunition supply units to best support the operational plans of tactical commanders. COSCOMs tailor munitions resources, realign priorities, and synchronize support assets to meet changing tactical situations. Tactical commanders should plan their operations and commit their forces only after a full awareness of the support capabilities of the COSCOM's munitions support structure.

CONVENTIONAL AMMUNITION SUPPORT ORGANIZATION

The COSCOM's ammunition support organization provides for the replenishment and delivery of ammunition to users. Refer to Figure 5-1. Based on factors of METT-T, the COSCOM and CMMC shift the flow of Class V or redistribute Class V stocks from less affected areas to support high priority operations.

Ordnance Companies, Ammunition, DS (MOADS or MOADS/PLS)

Whether organized under TOE 09483L000/09484L000, each company can establish three ASPS and an ATP in each division rear area to support combat units and FSB ATPs. FMs 9-6 and 9-38 describe unit operations. The ASPS provide continuous resupply to the ATPs. Stockage levels at the ASPS vary based on tactical plans, availability y of ammunition, and vulnerability of LOCs to interdictions. Stockage needs to cover surge and emergency requirements.

One company is allocated per division. The COSCOM commander attaches a DS conventional ammunition company to each forward CSG. The forward CSB's headquarters provides the command and control element for the DS ammunition supply company.

Ordnance Companies, Ammunition, GS (MOADS or MOADS/PLS)

Organized under TOE 09488L000/09433L000, GS ammunition supply companies establish a CSA in the corps rear area and one behind each committed division. Allocation depends upon METT-T and the size of the corps' stockage objective. CSAs provide corpswide ammunition support. They serve as the primary source of high-tonnage ammunition for the division.

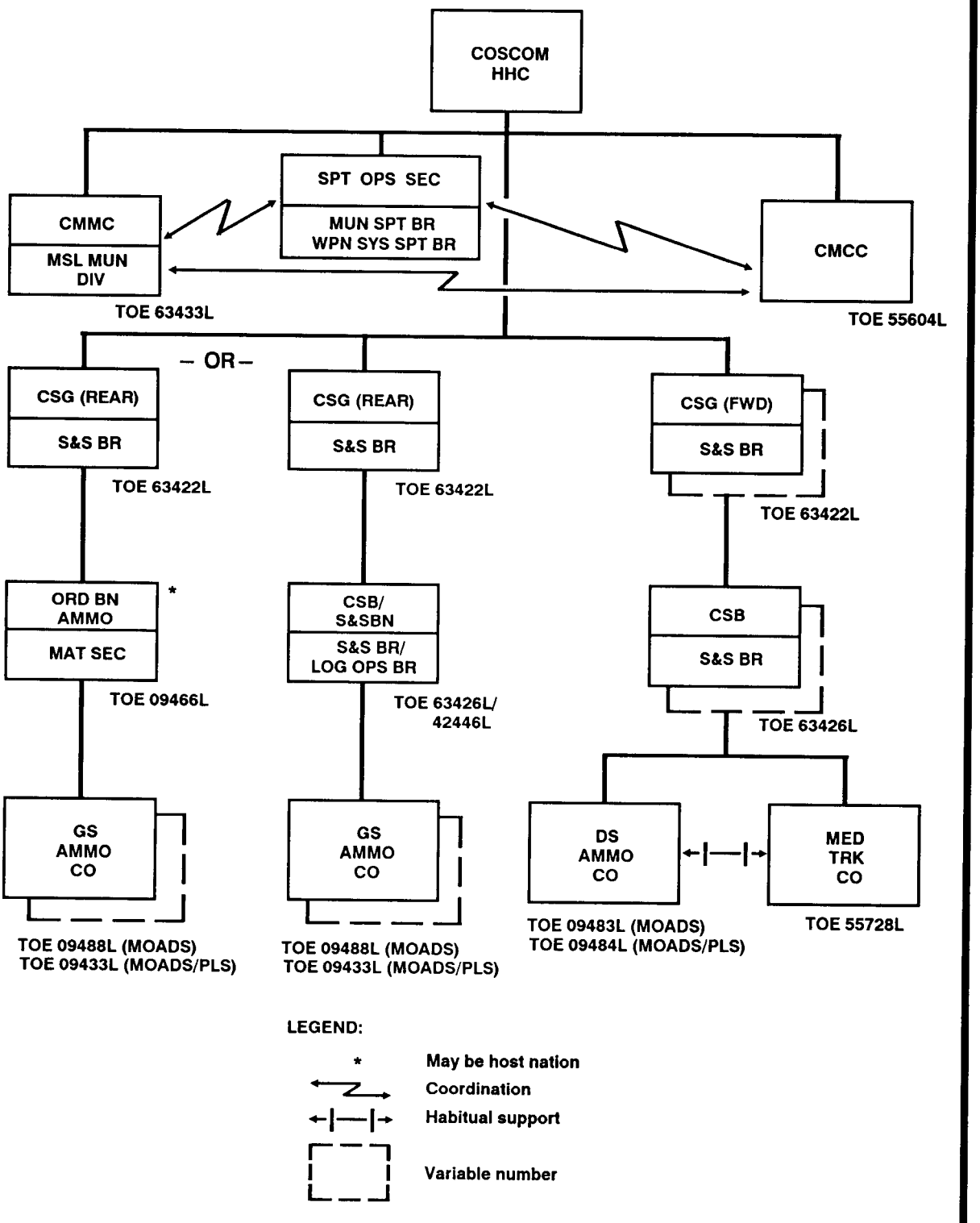

Figure 5-1. COSCOM conventional ammunition organization.

Based on divisional forecasted needs, CSA personnel configure CCLs and ship ammunition to ASPs and ATPs on the transportation battalion's medium truck company's assets. CSAs also provide DS area support to units operating in the rear of the corps rear area as well as support for reconstitution operations. FMs 9-6 and 9-38 provide more detail on mission operations.

In a mature theater, GS ammunition supply companies are attached to an ammunition battalion under the rear CSG. However, depending upon theater buildup and implementation of the TPFDL, a GS ammunition supply company could also be attached to the rear CSG's CSB or S&S battalion. In contingency operations or to shorten the distance between CSAs and ASPs/ATPs, the COSCOM commander can attach a GS ammunition supply company to the forward CSG's CSB to operate a CSA behind each division.

HOST-NATION SUPPORT ORGANIZATION

Support agreements identify dedicated sources of HNS. During joint operations, a HNS organization can augment the COSCOM's conventional ammunition support organization. National agreements define the interaction between HNs and US CLTs. The concept of obligatory cooperation is initiated after mobilization of WHNS units. Depending on the support agreements for the theater of operations, HNs could provide ammunition supply units/battalion to augment conventional GS ammunition operations.

US Ammunition Cellular Logistics Teams

Depending upon the theater scenario and national agreements, HNS agreements provide for US ammunition CLTs to collocate with the WHNS ammunition battalion headquarters and ammunition supply companies. These CLTs control US ammunition in the custody of WHNS ammunition supply units.

These CLTs are assigned to the COSCOM and attached to a CSG. They provide an ammunition accountability interface between the CMMC, US ammunition supply system, and WHNS ammunition supply companies. The CMMC tasks the WHNS ammunition supply battalion through the CLTs. Taskings flow from the CMMC via SAAS-3 to SAAS-4 used by the CLT at the WHNS ammunition supply company. The WHNS ammunition supply battalion reports organic capability to its higher headquarters to ensure work load capability is not exceeded by MRO taskings.

HHD, Ordnance Battalion, Ammunition, WHNS (TOE 09574LA00). This ammunition control detachment provides C2 and staff planning for up to nine CLTs. HHD personnel provide technical direction over the mission operations of these elements. They collocate with the WHNS battalion headquarters, serving as the battalion logistics operations section. They consoldiate and forward reports from the CLTs at the HN companies to the CMMC.

Ordnance Companies, Ammunition, WHNS (TOE 09574LBOO). A CLT can be allocated per WHNS ammunition supply company. These CLTs develop and maintain surveillance data on US-owned ammunition stocks issued, received, and stored by the WHNS ammunition supply unit. Personnel operate a stock control section at each WHNS ammunition supply company. They –

- Coordinate ammunition resupply, receipt, issue, and rewarehousing actions with the HN ammunition supply unit.
- Convert SAAS data into HN formats (short tons to metric tons and DODAC to interoperability codes).
- Perform quality assurance/quality control inspections on ammunition stocks stored by the HN unit.
- Coordinate maintenance support for US equipment operated by the HN unit.

Accounting Team, WHNS (TOE 09574 LC00). Depending upon the WHNS structure and operation, up to two of these teams may be attached to a WHNS ammunition company. They perform the following functions:

- Maintain surveillance, interchangeability, and substitution data on ammunition stocks.
- Perform stock accountability and stock status reporting of US owned ammunition stocks issued, received, and stored by WHNS ammunition supply units.

CHEMICAL AMMUNITION SUPPORT ORGANIZATION

Conventional DS/GS ammunition units may perform chemical munitions support missions. Their ASPs and CSAs have the capability to receive, store, assemble, and issue binary chemical munitions.

The GS conventional ammunition company's CSA receives unassembled binary chemical munitions from

the port. Normally, CSA personnel ship unassembled binary chemical munitions to the ASPs. However, to speed retaliatory fires, the CSA can assemble and ship the munitions to ASPs or ATPs for issue.

DS conventional ammunition company ASPs receive unassembled binary chemical munitions either from the CSA or directly from the port. They store the munitions as nonlethal component canisters. Upon receipt of properly authenticated release orders, ASPs assemble the components and ship the assembled chemical munitions forward to the ATPs for issue to firing units.

SAMPLE BATTLEFIELD EMPLOYMENT

Figure 5-2 depicts how a COSCOM might employ conventional ammunition elements. Employment follows MOADS doctrine and is enhanced with the availability of PLS cargo trucks.

Each FSB forward supply company operates an ATP in each brigade area. These FSB ATPs support their combat brigades and other units that may be operating in the brigade area. The DAO specifies which units are supported by ATPs, to include the ATP run by the nondivision ammunition company. The forward CSG's LO arranges with the DAO for corps elements in the brigade area to obtain their ammunition from the ATPs.

The COSCOM attached a DS ammunition company to the CSB in the division rear area. Under MOADS, each of the DS ammunition companies can operate –

- An ATP which supports units operating in the division area. It provides high-volume, high-tonnage items used primarily by corps artillery and aviation units. The DAO provides mission guidance and shipment priorities to this ATP through his representative located at the ATP.
- Three ASPs which prepare ammunition for ground or aerial transport to the ATPs and units in the division rear area. Each ASP may require 5 to 6 kilometers square or larger. ASPs receive their mission work loads and priorities of issue from the CMMC. The COSCOM support operations officer sets ASP stockage objective based upon —
  - ❑ Corps tactical plans and projected battle intensity.
  - ❑ Types of units supported.
  - ❑ Availability of ammunition and LOC vulnerabilities.
  - ❑ Threat disruption of resupply operations.

In this example, force structure allowed the corps to assign five GS conventional ammunition companies to the COSCOM. The COSCOM allocated a GS ammunition company to operate a CSA in each of the CSG's AO. It attached a GS ammunition company to a CSB within each forward CSG. These CSAs prepare ammunition for shipment to the ASPs and ATPs. They require approximately 40 square kilometers each. Habitual transportation support is provided by the CSB's medium truck company.

The COSCOM attached the remaining GS ammunition units to the rear CSG's ammunition battalion. The CSA in the corps rear area provides the initial storage area for ammunition stocks from a theater storage area. It prepares ammunition for shipment to the ASPS and ATPs. Based on projected ammunition support requirements, the COSCOM allocated three medium PLS truck companies (TOE55728L300), assigned to the rear CSG's transportation battalion, to support ammunition distribution from the CSA to the ASPs and ATPs in the division area. This CSA provides the surge reserve which enables the corps commander to weight the battle. It also provides area support for units in the corps rear area.

MUNITIONS DISTRIBUTION SYSTEM

To support generation of combat power by maneuver units, the COSCOM designs its munitions distribution system to provide the right types and quantities of munitions at the decisive time and place. Heavy threat activity in the corps rear area could place unprecedented demands on that distribution system. Ammunition supply units push high tonnages of ammunition forward while at the same time maintaining minimum essential stocks to support future combat operations.

HABITUAL SUPPORT

To ensure continuous, responsive munitions support, the COSCOM allocates and assigns medium truck companies to CSGs to provide habitual transportation support to ammunition supply companies. The COSCOM/CSG

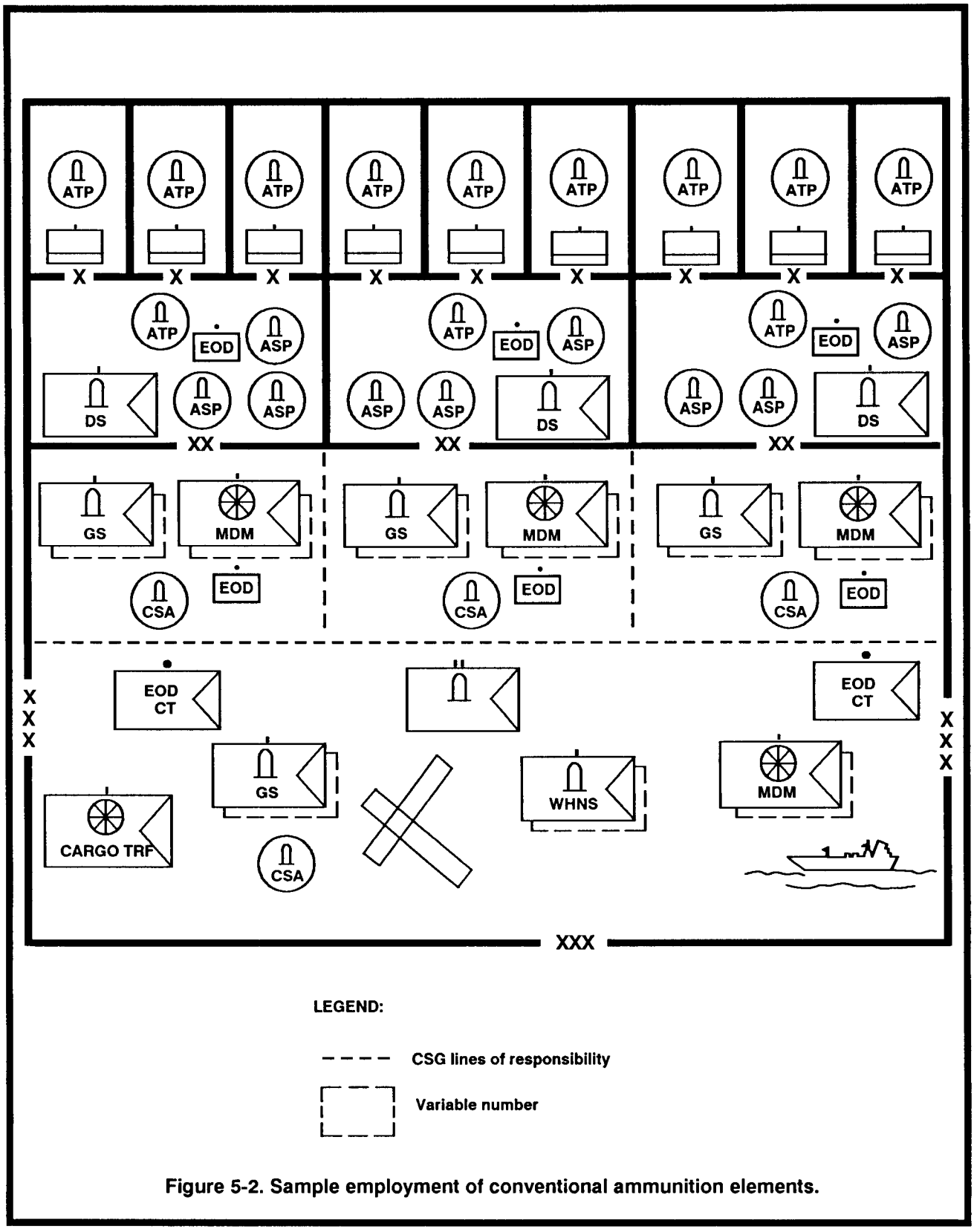

Figure 5-2. Sample employment of conventional ammunition elements.

attaches a medium truck company/companies to those CSBs with a GS ammunition supply company. The truck unit supports routine, recurring daily movement of ammunition from the CSA to ASPs or ATPs. Trailer transfer points or staging points for convoys of throughput vehicles set up at each CSA.

Because the distribution of ammunition from CSAs to ASPs or ATPs must occur on a routine basis, the supporting MCT preassigns a block of TMRs commiting the trucks. Close coordination needs to be maintained between the ammunition storage site, supporting medium truck unit, and tasking CSG/CSB. The CSG/CSB transportation branch tasks the truck unit to move the munitions. The truck company requests convoy clearance from the MCT and picks up shipments at the CSA.

When higher priorities occur, the CMCC, through its MCTs, recommits truck assets. The MCT then rescinds its TMRs and commits the CSB's truck assets to higher priority missions. Refer to Figure 8-3.

AMMUNITION REQUIREMENTS

A heavy division expends an estimated 3,500 tons per day. The conventional ammunition support system depends on continuous fill and refill. Combat and CS units submit ammunition requirements. The corps commander establishes CSRs based on ammunition availability and transportation capability. To assure that normal supplies begin arriving prior to termination of preplanned resupply, CMMC commodity managers need to make allowances for order-ship time.

Requirements Flow

In the division area S3s and S4s consolidate ammunition requirements and pass them through their higher headquarters to the DAO. The DAO consolidates these requirements and passes them to the CMMC. He directs the units to pickup ammunition from an ATP or ASP.

In the corps rear area, nondivision units pass their requirements through their higher headquarters to the CMMC. The CMMC consolidates requirements from the divisions and nondivision units. The CMMC requests replenishment stocks either through the TAMMC or directly from a CONUS NICP. The CMMC directs shipments from CSAs and ASPs to meet user requirements.

Status Reports

CSAs, ASPs, and ATPs use daily transaction reports to provide ammunition status to the CMMC. The DAO needs to receive daily status reports from all ATPs. Information copies of status reports flow through the CSB support operations section or ammunition battalion to the CSG and COSCOM support operations section. These reports include data on ammunition issues, receipts, condition code changes, and losses. Critical ammunition status is reported in the Class V asset report. The CMMC prepares an ammunition status report to inform the COSCOM support operations officer and corps G4 of the current ammunition stockage posture.

AMMUNITION DISTRIBUTION

The TAACOM MMC transmits a copy of the manifest or manifest data to the CMMC prior to shipment arrival. This allows the CMMC time to review stock status and determine if a change of consignee is required. Priority of resupply is to ASPs identified for buildup to support tactical plans.

The CMMC notifies the CMCC after receiving notice of incoming shipment. The CMMC informs the CMCC of type, compatibility, weight, cube, quantity, and destinations of the shipment. The CMCC/MCT then coordinates movements.

Figure 5-3 depicts conventional ammunition resupply. Ammunition is normally shipped via sea transport and moved through freed ports or LOTS to a TSA in the COMMZ. From that storage area, theater trucks move ammunition shipped in DODIC loads to CSAs and ASPs.

CSAs receive an estimated 50 percent of replenishment ammunition from a TSA and 50 percent from the point of entry in the theater. The CMMC releases stocks from CSAs to replenish the corps ASPs/ATPs and FSB ATPs. Under MOADS, ASPs receive an estimated 50 percent of their replenishment ammunition from the CSA, 30 percent from the TSA, and 20 percent from the port of debarkation. Once the PLS is fielded, ASPs may receive all of their stocks from the CSAs.

CSAs and ASPs configure ammunition into CCLs for shipment to ATPs. Replenishment shipments to ATPs flow from the CSA, with backup supply provided by a designated ASP. To reduce handling time, the CSA ships CCLs to the ATPs, bypassing the ASPs whenever possible. ATPs receive an estimated 75 percent of the division's requirements from the CSAs and 25 percent from the ASPs.

The ammunition distribution system is a supply point distribution system. This means that units use their organic vehicles, with possible onboard MHE, to pick up ammunition stocks to replenish their basic load. To reduce the travel distances of using unit vehicles, the

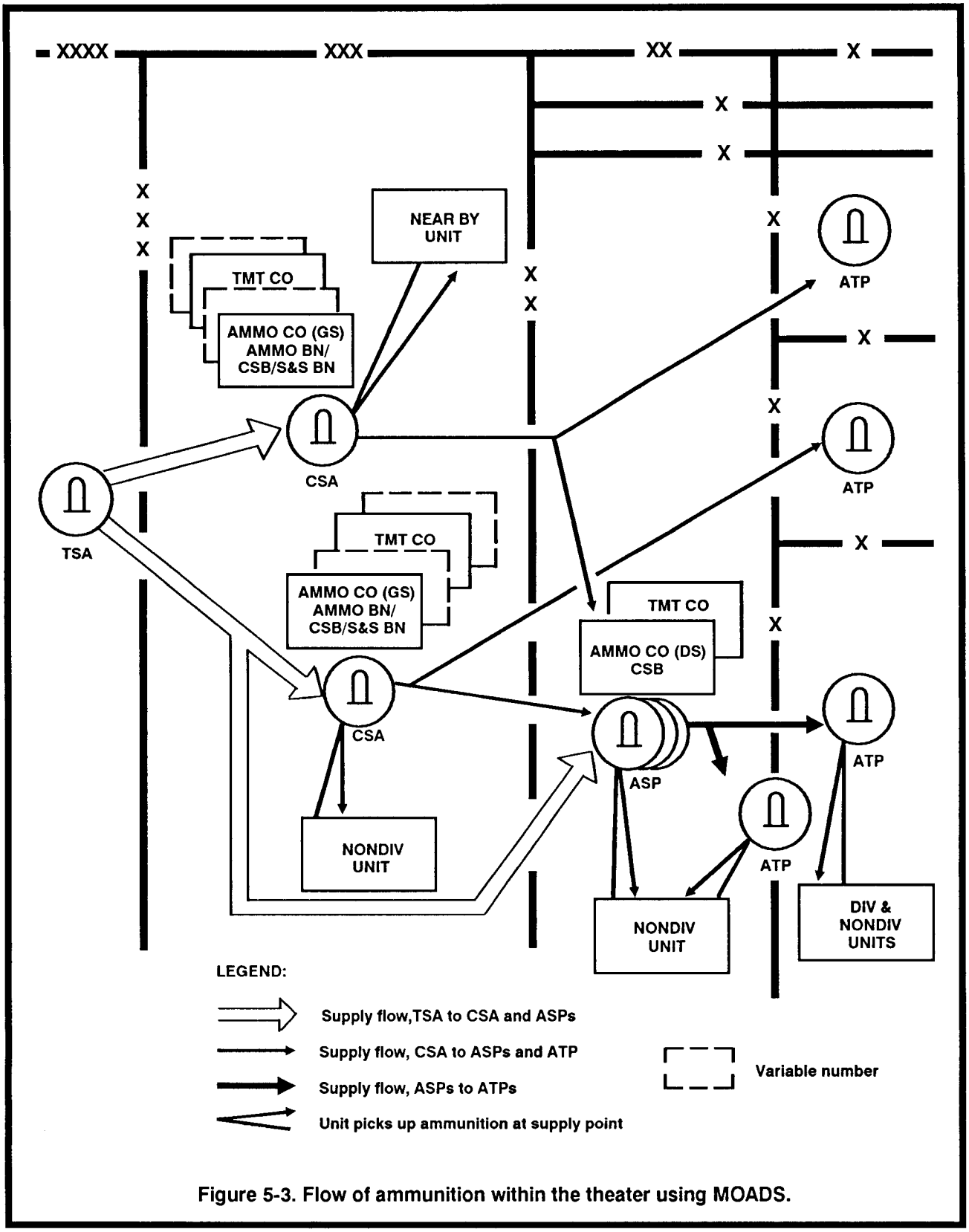

Figure 5-3. Flow of ammunition within the theater using MOADS.

CSG OPORD directs that certain customer units pick up their ammunition stocks from a nearby ASP or CSA in their support area.

Corps aviation units provide emergency rapid resupply of low density, high value aviation Class V to an ATP in the aviation brigade's rear. As required, supporting ASPs and CSAs provide a sling-out pad for aerial resupply.

CHEMICAL AMMUNITION RELEASE

Chemical ammunition can be released for use only upon approval of the corps commander. The corps chemical officer transmits chemical employment approval through command channels. A chemical weapons implementing instructions message provides logistics information for the COSCOM. It provides the order to execute forward deployment of chemical munitions or to transfer chemical munitions to allied forces.To speed retaliatory firings, aircraft deliver initial issues of chemical ammunition to artillery units after a release directive.

Binary chemical munitions are distributed through conventional ammunition channels. As required, escorted convoys from the TSA in the COMMZ resupply the chemical ASP.

AMMUNITION HANDLING

Improved ammunition handling means reduce handling, conserve transportation, speed ammunition transfer operations, and streamline the ammunition distribution system.

COMBAT CONFIGURED LOADS

CCLs consist of preplanned packages of high-density ammunition tailored to support a type unit, a task force, or weapon systems. CCLs facilitate loading mission support vehicles with a minimum breakdown of ammunition. Instead of preparing unique mixed loads for each DODIC requested, DS/GS ammunition units configure and load complete rounds of CCLs for shipment when directed by the CMMC. CSAs construct CCLs for shipment to ATPs. As time permits, ASPs may also configure CCLs.

CCLs simplify ammunition resupply planning and coordination between the DAO and CMMC. The DAO reviews proposed CCL configurations submitted by S4s. He submits a consolidated division CCL request to the corps G4. The corps G4 coordinates with CMMC munitions managers in developing a corps CCL set of standard loads to support corps maneuver units. Corps staffs should define 15 to 20 standard CCLs.

CCL sets also help speed transmission of ammunition resupply requirements. Instead of ordering ammunition by each single DODIC, the DAO requests CCLs by their identifier. The DAO coordinates with the CMMC to ensure that CCLs are distributed to the right ATP at the right time.

MOADS PALLETIZED LOAD SYSTEM

MOADS uses PLS self-loading trucks and flatracks to enhance ammunition distribution and speed ammunition transfers at ASPs and ATPs. Units designated to receive PLS vehicles include corps transportation units, DS and GS ammunition units, and self-propelled artillery units. Units not authorized PLS vehicles require unit vehicles with onboard MHE to self-transload ammunition. Ammunition units and ATPs must retain personnel and MHE to transload ammunition to non-PLS units.

Using PLS vehicles results in the following changes in ammunition distribution throughout the theater:

- The TSA stores single-DODIC ammunition on PLS flatracks. It ships only to the CSAs, not to the ASPs. Since theater truck units do not have PLS vehicles, line-haul trailers or rail flatcars transport PLS flatracks to the CSAs.
- CSAs ship 100 percent of ASP requirements on single-DODIC loaded PLS flatracks. Based on division forecasts and updated changes, CSAs construct and ship CCLs to the ATPs. Corps PLS vehicles move ammunition shipped forward from CSAs on PLS flatracks.
- ATPs receive 75 percent of their requirements as combat configured loaded flatracks transported by PLS vehicles from the supporting CSA. An ASP provides the remaining 25 percent of ATP requirements.

MINES AND EXPLOSIVE ORDNANCE

Mines and explosive demolitions help delay, disrupt, or channel enemy movement and halt or slow his offensive or counterattack. They help stop enemy advances and enable offensive and counterattacking forces to maneuver.

During the offense, maneuver units breach minefield and obstacles to regain the full use of routes and terrain. To counter enemy movement, defending forces emplace obstacles quickly. They need to be kept supplied with ground-delivered scatterable mines, cratering devices, and hasty bridge demolition materials.

Threat forces employ mines and obstacles in depth. Enemy artillery or air strikes on bridges, airfields, roads, and urban areas also create obstacles to maneuver. Maneuver forces maintain momentum by conducting hasty breaches using available countermine assets. Mines and explosives provide a way to quickly breach wire obstacles, destroy log obstacles, and clear aside debris to reopen routes.

Deliberate breaches require combat engineer support and mines or explosives as well as organic engineer equipment. Engineers use mines and obstacles in countermobility operations, to include closing the most probable avenues of approach, destroying bridges, and creating obstacles at critical areas along the flanks of advancing forces. Engineers coordinate breaching materiel requirements with the CMMC.

EXPLOSIVE ORDNANCE DISPOSAL SUPPORT

The increase in terrorists' threats, threat munitions, and new and unusual unexploded ordnance devices stresses the capability of EOD support resources. The EOD support structure consists of an EOD control team and EOD detachments. FMs 9-6 and 9-15 provide more information on these elements and their employment.

EOD Control Team

The EOD control team (TOE 09527LA) provides centralized command and control of EOD operations and functions in the corps area. Assigned to the corps headquarters on the basis of one per corps, the team receives its directives from the corps rear CP. The EOD control team can coordinate a maximum of 500 routine incident reports per day from its 3 to 10 subordinate EOD detachments and augmentation EOD response teams.

S3s request EOD support or report EOD incidents through the area RAOC. After coordination with the corps G3, EOD control team personnel prioritize the reports and coordinate the render-safe operations of subordinate detachments and augmented response teams. They also provide technical expertise in dealing with improvised explosive devices.

EOD Detachments

EOD detachments (TOE 09527LB00) provide render safe and disposal EOD service on an area basis. They neutralize hazards resulting from domestic or foreign ordnance or improvised explosive devices (conventional, nuclear or nonnuclear, chemical, or biological). EOD detachments assist the area RAOC with damage control service through threat ordnance neutralization. Each detachment can respond to up to 50 routine incidents per day, averaging no more than 2 hours.

Based on the projected number of EOD incidents, up to ten detachments might be allocated to the corps. They are attached to fixed strength units or headquarters based on the tactical situation in the area served. Several detachments locate near the area RAOC. These detachments receive rations, quarters, and logistics support from the CSG HHC providing life support to the RAOC. Though not assigned perimeter defense roles, these EOD detachments should be included in the supporting CSG HHC's base defense plan.

The area RAOC coordinates support required by the EOD detachment. This includes securing the incident area, providing a secure disposal or storage area, and coordinating any needed air transportation.

MANAGING MUNITIONS SUPPORT OPERATIONS

Munitions management focuses on the requirement to supply large quantities of diverse types of munitions to widely dispersed units often moving every few days. The CMMC manages the distribution of munitions, to include chemical ammunition. The TAMMC provides centralized control over the distribution of munitions between corps.

COSCOM MUNITIONS SUPPORT BRANCH

The COSCOM munitions support branch provides technical staff control and supervision through the COSCOM support operations officer to the CMMC's missile-munitions division office. This office reports materiel problem areas to the COSCOM munitions support branch. The COSCOM support operations

officer recommends Class V distribution priorities and meets with the corps G3 on problems which significantly impact on support of tactical operations.

Munitions officers and their staff recommend ways to offset shortfalls in the COSCOM's ability to arm the corps force. Some suggestions are listed on Table 5-1. They perform the following tasks:

- Review the corps directed CSR and forward distribution recommendations to the corps G4 and G3 based on ammunition status.
- Assess recommended locations for CSAs and ASPS in relation to the transportation network.
- Monitor CSSCS reports on the supply status of Class V items and assess the impact of critical theater-wide shortages and theater suspensions.
- Review SAAS output reports of assets in transit between storage points to ensure timely supply support to customer units.
- Monitor stockage and distribution of munitions, missiles, special weapons, and associated test equipment.
- Evaluate and analyze data from the CMMC for trends and potential support problem areas.
- Recommend ways to resolve munitions support problems to the COSCOM support operations officer.
- Coordinate the cross-leveling of Class V resources with the CMMC and CSGs.
- Help resolve corpswide distribution problems by recommending actions such as relocating ASPS or operating an ammunition supply company from two separate locations.
- Recommend movement of CSAs and ASPs as the situation dictates.
- Provide advice on the adequate dispersal of munitions to prevent or reduce losses by enemy action or accident.
- Monitor munitions malfunctions throughout the COSCOM area of responsibility.
- Develop procedures for the receipt, storage, and maintenance of munitions; the renovation of restorable rounds; and the destruction of condemned stocks.
- Monitor movement of chemical or contaminated munitions through the COSCOM AO in coordination with COSCOM transportation support branch staff.

CMMC MANAGEMENT

The CMMC provides Class V management and control. It manages GS level stocks in COSCOM subordinate units. It reviews and analyzes demands and computes corps requirements for ammunition. It also monitors the flow of munitions into and within the corps in order to maintain visibility of the ability of COSCOM units to receive stocks.

CMMC MISSILE-MUNITIONS DIVISION OFFICE

The CMMC missile-munitions division office performs integrated materiel management of missiles and munitions and systems unique ancillary equipment, including end items, components, and repair parts. Supported materiel includes –

- Rockets.
- Guided, ballistic, and target missiles.
- Missile tire coordination equipment.
- Related special purpose and multisystem test equipment.

This division consolidates and processes requirements for missile-munitions. It manages day-to-day missile and munitions logistics assets of the corps. It programs maintenance and cross-levels missile maintenance resources. The division chief refers missile- munitions materiel problems that deviate from the routine to the COSCOM support operations officer/munitions support branch chief.

To permit intense management of munitions materiel, the division is divided into the following three functional branches.

Missile-Munitions Equipment Supply Branch

This CMMC branch manages the day-to-day supply actions for missile and munitions equipment. Branch personnel process and control documents sent to or received from storage sites. Their responsibilities include —

- Maintaining stock record accountability for Class V and related Class VII materiel within the corps.
- Implementing policies outlined in ARs 710-1 and

Table 5-1. Ways to offset shortfalls.

AMMUNITION SHORTFALLS
• Substitute with like DODICs. • Cross-level between ASPs/CSAs. • Reduce basic loads.
DISTRIBUTION
• Preposition Class V supplies forward following a risk assessment. • Divert transportation assets from less critical missions. • Use assets in supported units. • Increase throughput. • Revise movement priorities. • Increase the use of rail and inland waterways. • Request HNS.
MHE SHORTFALLS
• Cross-level assets. • Task units not fully occupied to provide labor. • Revise MHE maintenance priorities. • Contract HNS.

710-2 and SAAS technical manuals for operation of the stock record account.

- Monitoring requisition objectives created by SAAS.
- Processing requisitions for Class VII TOE missile equipment shortages and taking follow-up actions, as required.
- Providing assistance to the equipment authorization branch, service support division, on cross-leveling missile-munitions materiel already in the corps area.
- Establishing mandatory stockage levels for missile-munitions items not automatically stocked, stored, and issued through SAAS software programs.
- Monitoring SAAS output to ensure timely support to customer units.
- Reviewing stock status reports consolidated from ammunition storage locations and using them to compute authorized levels.
- Monitoring the stock status of ammunition on hand or being throughput from the corps rear area.
- Coordinating with NICPs to fill missile-munitions requirements.
- Coordinating with the COSCOM munitions support branch on handling corpswide distribution problems.
- Redirecting munitions en route as directed by the COSCOM support operations officer when higher corps priority missions dictate.

Missile-Munitions Parts Supply Branch

This CMMC branch manages the day-to-day supply

of repair parts for missile and munitions equipment. Branch personnel implement the policies and plans of the COSCOM support operations officer/munitions support branch chief. Branch personnel responsibilities include –

- Maintaining Class IX ASLs of missile and munitions equipment repair parts.
- Recommending cross-leveling of missile and munitions equipment repair parts.
- Providing input to SAMS to generate shipping instructions to missile support units, missile maintenance units, and ammunition supply units.
- Reviewing output from SAMS to determine trends in operational readiness.
- Processing requisitions on a daily basis and initiating follow-up actions on missile-munitions repair parts.
- Resolving corpswide distribution problems.
- Laterally transferring missile-munitions parts to meet urgent demands.
- Directing redistribution of stocks from activities that reflect an excess of missile-munitions parts.

Missile-Munitions Maintenance Branch

This CMMC branch manages the maintenance system in support of missile-munitions equipment in the corps. Branch personnel implement the policies and plans of the COSCOM support operations officer and munitions support branch chief. Their responsibilities include –

- Coordinating with the missile-munitions supply and repair parts branches.
- Evaluating SAMS output.
- Transmitting instructions to missile support units, missile maintenance units, and ammunition supply units on evacuation of unserviceable equipment requiring higher level maintenance.
- Transmitting instructions to units on the evacuation of unserviceable materiel and scrap.
- Transmitting repair priority data to missile support units, missile maintenance units, and ammunition supply units.
- Coordinating with the parts supply branch on repair parts requirements for maintenance of items in short supply.
- Expediting maintenance when the estimated delivery date proves unsatisfactory.
- **Coordinating requirements for controlled cannibalization** or parts fabrication.

CSSCS CLASS V REPORTS

CSSCS tracks those munitions items which appear on the CSSCS tracked items list. As a result of its interface with SAAS, CSSCS provides status displays of Class V assets within the corps area. Ammunition stockage data flows from CSAs and ASPs to the battalion, group, and COSCOM support operations section and the CMMC. Ammunition asset displays report assets for the force. Displays also list assets located in supply points and all the DODAACs or weapon categories on hand in subordinate units.

COSCOM munitions support branch officers use CSSCS force level displays to assess the current or projected availability of ammunition assets for the force. They assess the unique situation at a particular ammunition supply unit or the status at a particular CSA, ASP, or ATP. This allows them to better tailor stockage levels to support requirements.

The COSCOM support operations officer uses CSSCS force level displays to recommend adjustments to distribution plans, allowing additional supply of ammunition to committed units.

STANDARD ARMY AMMUNITION SYSTEM LEVEL 1/3

SAAS 1/3 provides CMMC munitions commodity managers stock status and asset visibtity over ClassV stocks. They use SAAS 1/3 to perform stock control, generate materiel release orders, and redirect ammunition stocks intransit based on the tactical situation and critical need. Figure 5-4 illustrates the interface of SAAS l/3 at the CMMC with SAAS 4 run on TACCS at the CSAs and ASPs.

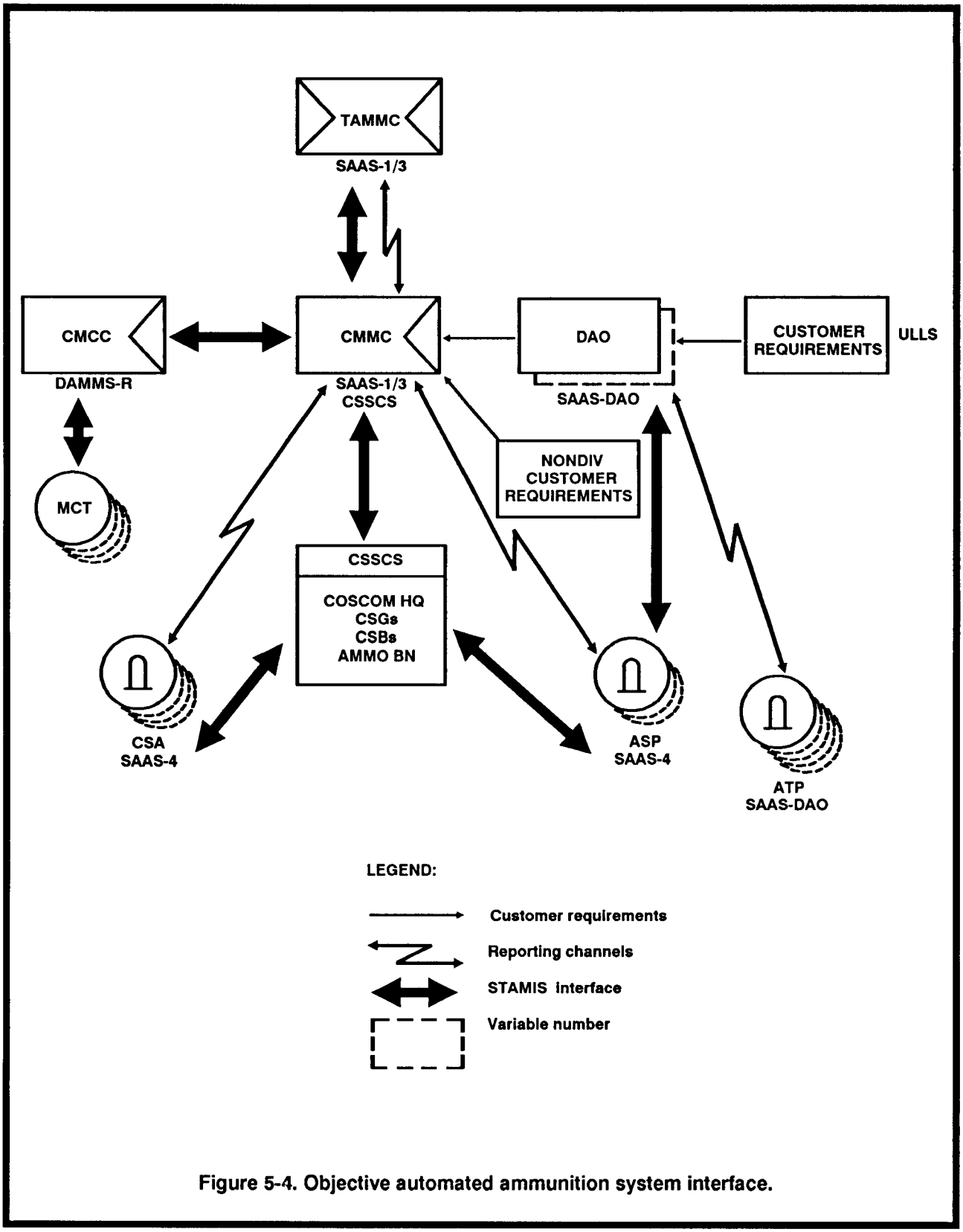

Figure 5-4. Objective automated ammunition system interface.